

REMARKS/ARGUMENTS

This amendment is filed contemporaneously with a Request for Continued Examination and is in response to the Office Action mailed January 4, 2006.

In the Office Action mailed January 4, 2006, the Examiner refused to enter the amendment of November 25, 2005 because it allegedly added new matter. The Examiner said that the new material added was that "light water is used as coolant." Since the only reference to use of light water as a coolant was the Qinshan NPP and since it was unclear from the specification if the Qinshan NPP is the work of the applicant, the Examiner provisionally concluded that the use of light water as a coolant was not the work of the applicant and required the new matter to be cancelled.

In the above-identified amendment, the reference to light water being used as a coolant has been deleted from the specification. Thus, the Examiner's objection to the amended specification is overcome by this amendment.

In the Office Action mailed January 4, 2006, the drawings received on November 25, 2005 were objected to because they had copy machine marks, had poor line quality and the numbers were not plain and legible nor were they "at least 1/8 inch in height."

As noted by the Advisory Action mailed April 26, 2006, the amendment filed April 17, 2006 was not entered because it allegedly introduced new matter. The amendment of April 17, 2006 attempted to submit revised drawings to overcome the objections made by the Examiner in the office action that was mailed on January 4, 2006.

Upon further review of the file history, it appears that the Examiner has considered the application and claims using the wrong figures.

Two new sheets of figures are submitted with this amendment in response to the

objection made in the January 4, 2006 office action and to bring to the Examiner's attention, the fact that when this application was filed in the USPTO on July 7, 2004, it was filed with two (2) foreign priority documents. The file history of this application available on line (via public PAIR) shows that both of the priority documents that were filed on July 7th, are labeled as part of PCT application number PCT/CN03/0006. Both of the priority documents are date stamped by the PCT receiving office: "19 FEB 2003."

An inspection of the two priority documents that were filed with this application on July 7, 2004 reveals that the Examiner appears to have considered the wrong set of drawings from the priority documents, namely the figures submitted in one of two priority documents that were filed July 7, 2006.

The figures filed herewith are from the *second* priority document that was filed on July 7, 2004. Thus, no new matter is added by their presentation with this amendment.

The drawings filed herewith are believed to overcome the objections to the drawings that were made by the Examiner in the January 4, 2006 office action. The lines are clear and legible and the reference numerals are at least 1/8 inch in height.

In the Office Action mailed January 4, 2006, claims 1-5 were rejected under 35 U.S.C. §112, ¶1 and ¶2 because of the new matter allegedly added to the specification. Of these claims, claim 4 has been cancelled.

Claim 1 has been amended to delete the limitation that recited that light water is used both as a coolant and moderator. The specification has also been amended to delete reference to using light water as a coolant. The specification has also been amended to correct translation errors.

Claim 5 was additionally rejected under 35 U.S.C. §112, ¶2 because the term

“residual heat removal system” was considered by the Examiner to be unclear. The amendment to claim 5 set forth above recites that the residual heat cooler is comprised of an electromagnetic valve on a connection tube, thus, the rejection of claim 5 under §112, ¶2 is believed to be overcome.

Claims 1 and 3 were rejected under 35 U.S.C. §102(a) as being anticipated by Gruel. Claim 2 was rejected under 35 U.S.C. §103(a) being unpatentable over Gruel in view of Gou et al., i.e., U.S. patent number 5,577,085. Claims 4 and 5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Gruel in view of Newton et al., i.e., U.S. patent number 5,268,942 and U.S. patent number 3,309,278 to Dickson.

As for the rejection of claim 1 under §102, the Examiner admits that Gruel does not disclose the pressurizer recited in claim 1. The Examiner nevertheless continued the rejection of claim 1 and cited US patent 2,714,577 to show that the CANDU reactor taught by Gruel *inherently* taught the pressurizer recited in claim 1.

Claim 1 has been amended to delete the limitation that recited the use of light water as both a coolant and a moderator, thus overcoming the Examiner's rejection of the claim under §112.

Claim 1 has been further amended to recite an underwater **hole canal**, which allows spent fuel assemblies used in the reactor core to be safely transported from the core pool 8 into the spent fuel storage pond 15. Claim 1 also recites that the hole canal is plugged when the reactor is operating but opened to transport spent fuel assemblies thus providing a safe yet simple way to safely handle reactor spent fuel. This special and novel underwater fuel-handling canal replaces conventional fuel handling systems

and forms the basis of the applicants belief that claim 1 as amended avoids the prior art and is now in condition for allowance.

Claims 2-3 and 5, which depend from claim 1, are also in condition for allowance. Of note however are limitations that have been added to claim


As for claim 2, it now recites a sealing cover and an airtight gas shield, which is distinctly different from the domes 6 and 12 in the Gou patent. In the Gou patent, the steel domes and the containment vessel 2b form a well for containing gases that might escape in the event that the dome 6 is breached. The airtight shield of claim 2 is arranged at the top of the core pool in an area between the sealing cover and the airtight shield and is subjected to negative pressure.

Regarding claim 3, it recites a pressurizer or a large pool to improve static pressure at the core outlet. None of the prior art references disclose such a device. If the Examiner contends that a conventional pressurized-coolant reactor comprises a pressurizer as claimed, he should provide at least one reference to support such a contention.

Since the Examiner's objections to the specification are believed to have been overcome and since the claim rejections are believed to have been traversed, the Applicant respectfully submits that claims 1-5 are in now condition for allowance and therefore respectfully requests reconsideration of the claims.

Respectfully submitted,

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